

REMARKS

In this paper, claims 49, 53, 54 and 58 are currently amended, and claims 59-64 have been added. After entry of the above amendment, claims 49-64 are pending, and claims 1-48 have been canceled.

An Information Disclosure Statement (IDS) accompanies this amendment. If the IDS is not in the PTO file when the examiner considers this amendment, the examiner is encouraged to contact the undersigned so that a duplicate copy may be provided.

The specification and drawings were objected to as not describing or showing the second sensor disposed on a rear derailleur as recited in claims 53 and 58. As stated in the specification at page 4, lines 13-15, derailleur 14 includes a base member 44 with an axle opening 48 so that derailleur 14 may be mounted to frame 22 by passing axle 32 through axle opening 48 and screwing nut 52 onto axle 32. The specification has been amended at page 8, lines 8-9 to clarify that sensor element 308 includes a frame 310 attached to base member 44 through bolts 311 so that second sensor element 308 is disposed on rear derailleur 14. Figs. 1, 2 and 8 clearly show frame 310 attached to base member 44 of derailleur 14. In view of the clarification of the specification, it is respectfully submitted that Figs. 1, 2 and 8 show the second sensor element disposed on a derailleur as recited in claims 53 and 58.

Claims 53 and 58 were rejected under 35 U.S.C. §112 because the specification does not disclose or describe the second sensor element disposed on a rear derailleur. This basis for rejection is respectfully traversed.

As noted above, the specification has been amended to clarify that mounting the second sensor element (308) to base member (44) thereby disposes the second sensor element on the derailleur (14). Claims 53 and 58 also have been amended to clarify that the second sensor element is disposed on the rear derailleur so that the second sensor element is fixed relative to a frame of the bicycle when the first signal and the second signal are received. This inherently occurs when the second sensor element is attached to base member (44). With respect to instability of the derailleur,

the amendment to claims 53 and 58 also clarify that the second sensor element is not disposed just anywhere on the derailleur, but on a derailleur component that is at least fixed relative to a frame of the bicycle when the first signal and the second signal are received. This makes it very easy to sense rotational directions.

Claims 49-58 were rejected under 35 U.S.C. §112 as being indefinite. This basis for rejection is respectfully traversed.

Independent claims 49 and 53 have been amended to delete the detecting step and to substitute the steps of receiving first and second signals, which is believed to clarify what the former detecting step comprised. Also, the passage of the sensor elements/units occur as the plurality of sprockets rotate relative to the second sensor element, since the first sensor element rotates together with the plurality of sprockets.

Claims 49-52 and 54-57 were rejected under 35 U.S.C. §102(b) as being anticipated by Li (5,900,703). This basis for rejection is respectfully traversed.

Independent claims 49 and 54 have been amended to clarify that the methods recited therein are directed to operating an electronically controlled derailleur to switch a chain among a plurality of sprockets including a first sprocket and a second sprocket. Li discloses a motor control system for an electrically motorized bicycle, wherein torque from a motor is applied to a bicycle wheel to reduce the effort required by the rider to pedal the bicycle. The motor control system comprises a magnet holder disk (20) having a central bore (21), wherein a plurality of magnets (30) are embedded in the magnet holder disk (20). The magnet holder disk (20) is rotatably mounted within a cover member (40) that is nonrotatably mounted to the bicycle frame (14). Sensors (50) are fixedly mounted to the cover member (40) for detecting the passage of the magnets (30) when magnet holder disk (20) rotates relative to cover member (40). The speed of the bicycle can be determined by the rate at which the magnets (30) pass the sensors (50), and the motor can be controlled accordingly to increase or decrease the amount of assistance applied to the bicycle wheel. Li has nothing to do with operating a derailleur for shifting a chain from one sprocket to another.

New claims 61 and 62 each include the step of commanding the derailleur to shift the chain between the first sprocket and the second sprocket in response to receipt of at least one of the first signal and the second signal so that the derailleur begins moving to shift the chain when the plurality of sprockets are located at a predetermined rotational position relative to the derailleur. A similar feature has been allowed in copending application number 10/079,382, so it is believed that claims 59 and 60 are allowable as well.

New claims 63 and 64 correspond with former claims 53 and 58, respectively, amended to overcome the objections noted for those claims. Since claims 53 and 58 were not rejected over the prior art, it is believed that claims 63 and 64 are allowable.

Accordingly, it is believed that the rejections under 35 U.S.C. §102 and §112 have been overcome by the foregoing amendment and remarks, and it is submitted that the claims are in condition for allowance. Reconsideration of this application as amended is respectfully requested. Allowance of all claims is earnestly solicited.

Respectfully submitted,



James A. Deland
Reg. No. 31,242

DELAND LAW OFFICE
P.O. Box 69
Klamath River, California 96050
(530) 465-2430